PFE ORIGINAL

SDMS DocID 2187267

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 3
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

APR 24 2008

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Timex Corporation
555 Christian Road
Middlebury, CT 06762

Attn: Mauro Calcano
Senior Vice President, Human Resources

Re: Safety Light Corporation Site
Bloomsburg, Pennsylvania

Dear Mr. Calcano:

The U.S. Environmental Protection Agency ("EPA") is seeking information concerning a release, or the threat of release, of hazardous substances, pollutants or contaminants into the environment at the Safety Light Corporation Site, which is a former manufacturing facility occupying approximately 2 acres of a 10-acre property adjacent to the Susquehanna River off Old Berwick Road, Bloomsburg, Columbia County, Pennsylvania (hereafter known as the "Site" or "Facility"). This Information Request addresses all periods of ownership and operation of any of Safety Light's predecessor or affiliated companies including, but not limited to, U.S. Radium, Lime Ridge Industries, USR Industries, USR Metals, Metreal and Isolite. Safety Light Corporation most recently used tritium in the manufacture of self-illuminated signs. Past disposal practices of various radioactive isotopes at the Site resulted in radiological contamination of on-site soils and groundwater.

Pursuant to the authority of Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. Section 9604(e), EPA has the authority to require Timex Corporation (the terms "you," and "Respondent" mean Timex Corporation, hereinafter "Timex") to furnish all information and documents in your possession, custody or control, or in the possession, custody or control of any of your employees or agents, which concern, refer, or relate to hazardous substances as defined by Section 101(14) of CERCLA, 42 U.S.C. Section 9601(14), and pollutants and/or contaminants as defined by Section 101(33), 42 U.S.C. Section 9601(33), which were transported to, stored, treated, or disposed of at the above-referenced Facility.

Section 104 of CERCLA authorizes EPA to pursue penalties for failure to comply with that section or for failure to respond adequately to required submissions of information. In addition, providing false, fictitious, or fraudulent statements or representations may subject you to criminal penalties under 18 U.S.C. Section 1001. The information you provide may be used by EPA in administrative, civil, or criminal proceedings.

Instructions for responding to this required submission of information are provided below.

INSTRUCTIONS

1. You may be entitled to assert a claim of business confidentiality covering any part or all of the information you submit. If you desire to assert a claim of business confidentiality, please see Enclosure 1, *Business Confidentiality Claims/ Disclosure To EPA Contractors & Grantees of Your Response*. You must clearly mark such information by either stamping or using any other form of notice that such information is trade secret, proprietary, or company confidential. To best ensure that your intent is clear, we recommend that you mark as confidential each page containing such claimed information.

2. Please provide a separate, detailed narrative response to each question, and to each subpart of a question, set forth in this Information Request. If you fail to provide a detailed response, EPA may deem your response to be insufficient and thus a failure to comply with this Information Request, which may subject you to penalties.

3. Precede each response with the number of the question or subpart of the question to which it corresponds. For each document or group of documents produced in response to this Information Request, indicate by the number of the specific question(s) or subpart of the question(s) to which it responds.

4. Should you find at any time after submission of your response that any portion of the submitted information is false, misrepresents the truth or is incomplete, you must notify EPA of this fact and provide EPA with a corrected written response.

5. Any terms that are used in this Information Request and/or its Enclosures, which are defined in CERCLA, shall have the meaning set forth in CERCLA. Definitions of several such terms are set forth in Enclosure 2, *Definitions*, for your convenience. Also, several additional terms not defined in CERCLA are defined in Enclosure 2. Those terms shall have the meaning set forth in Enclosure 2 any time such terms are used in this Information Request and/or its Enclosures.

Site records obtained from the Safety Light Corporation and an interview summary of a former employee suggest that a business arrangement existed between Safety Light Corporation and Timex. A copy of these records have been enclosed and may help you in your research. Based on these documents, EPA believes that Timex may have purchased radioactive material from Safety Light or its affiliates, and/or brokered, transported, or generated waste, hazardous substances or radioactive waste to the Safety Light Site. Please provide the following information:

INFORMATION REQUESTED

Please answer the following questions in accordance with the Instructions set forth above.

1. Describe in detail the business relationship between Timex and Safety Light.

2. Did Timex ever transport and/or broker hazardous substances and/or radioactive waste or other wastes to the Site?

3. If you answered "yes" to Question 2, please answer the following questions:

   a. Provide the name, current address (or most recent address available), telephone number, and contact person for each customer/generator/transporter for which you transported/brokered hazardous substances, radioactive waste or other wastes.

   b. Provide the time period during which you transported/brokered each customer/generator/transporter's hazardous substances, radioactive waste or other wastes.

   c. For each customer/generator/transporter for which you transported/brokered hazardous substances, radioactive waste or other wastes, provide:

      1) the entity which received the hazardous substances, radioactive waste or other wastes (i.e., U.S. Radium, Lime Ridge Industries, USR Industries, USR Metals, Metreal, Isolite);

      2) the type of hazardous substances, radioactive waste or other wastes that was disposed/reclaimed;

      3) the amount of hazardous substances, radioactive waste or other wastes transported/brokered to the Site by you;

      4) the dates of the pickup/delivery of the hazardous substances, radioactive waste or other wastes;

      5) all personal and internal company documents and correspondence regarding the type and amount of hazardous substances, radioactive waste or other wastes, dates transported/brokered to the Site, and transactions with U.S. Radium, Lime Ridge Industries, USR Industries, USR Metals, Metreal or Isolite;

6) the name, title, areas of responsibility, current (or most recent) addresses, and telephone numbers of other parties that have documentation or information pertaining to the transportation/ disposal of hazardous substances, radioactive waste or other wastes at the Site.

4. Did Timex ever generate radioactive wastes or other wastes that were disposed of or reclaimed by U.S. Radium, Lime Ridge Industries, USR Industries, USR Metals, Metreal or Isolite at the Site?

5. If you answered "yes" to Question 4, please address the following issues:

a. Please provide the following information regarding all wastes and by-products produced by your company during the period 1945 to the present:

1) the nature of radioactive waste or other wastes, hazardous substances, and/or by-products used, including their chemical content, characteristics, and physical state (i.e., liquid, solid, gas, or in the form of contaminated rags, cups, containers). Provide chemical analyses and Material Safety Data Sheets ("MSDSs"). If these analyses are not available for the period 1977-1991, submit analyses for the time period closest to these dates and describe, in detail, any changes in the process(es) in which radioactive waste or other wastes were produced that would affect the chemical analyses;

2) the annual quantity of radioactive waste or other wastes, hazardous substances, and/or by-products used or generated;

3) the process(es) in which radioactive waste or other wastes, hazardous substances, and/or by-products were used or the process(es) that generated each;

4) the types of containers used to treat, store, or dispose of radioactive waste or other wastes, hazardous substances, and/or by-products; and

5) the method of treatment and/or disposal of the above.

b. Provide the names, titles, areas of responsibility, addresses, and telephone numbers of all persons, including you, who, during the period 1945 to the present, may have:

1) disposed of or treated radioactive or hazardous materials at the Site;

2) arranged for the disposal or treatment of radioactive or hazardous materials at the Site; and

3) arranged for the transportation of radioactive or hazardous materials to the Site (either directly or through transshipment points) for disposal or treatment.

c. If your response to the above includes the contracting of a hauler or transporter to transport and/or dispose of wastes, explain these arrangements and provide documentation confirming the nature of those transactions. Please identify:

1) the persons with whom you, or other such persons, made such arrangements;

2) every date on which such arrangements took place;

3) for each transaction, the nature and quantity of material, including its chemical content, characteristics, physical state (i.e., liquid, solid), and the process for which the substance was used or the process that generated the substance;

4) the precise locations at which each material was disposed or treated at the Site;

5) the persons who selected the Site as the place at which materials were disposed or treated;

6) the final disposition of each material involved in such transactions; and

7) the names of employees, officers, owners, and agents for each transporter.

d. For each and every instance in which you/your company arranged for disposal or treatment of material at the Site, identify:

1) the quantity (number of loads, gallons, drums) of materials that were used, treated, transported, disposed, or otherwise handled by you; and

2) any billing information and documents (invoices, trip tickets, manifests) in your possession regarding arrangements made with your company to generate, treat, store, transport, or dispose of materials at the Site.

e. Provide the names, titles, and areas of responsibility of any persons, including all Timex employees, present and former, who are knowledgeable of the waste disposal practices of your company during the period 1945 to the present. Include current addresses and dates of birth for former employees.

f. Describe any permits or applications and any correspondence between Timex and any regulatory agencies regarding materials transported to or disposed of at the Site.

g. Provide copies of any correspondence between Timex and any third party regarding materials transported or disposed of at the Site.

h. Provide the identity of, and copies of any documents relating to, any other person who generated, treated, stored, transported, or disposed, or who arranged for the treatment, storage, disposal, or transportation of such materials to the Site.

i. Provide the identities of all predecessors-in-interest who, during the period 1945 to the present, transported to or stored, treated, or otherwise disposed of any materials at the Site and describe in detail the nature of your predecessor-in-interest's business.

j. Provide the name, title, address, and telephone number of the person answering these questions on behalf of the respondent.

k. For each question, provide the name, title, area of responsibility, current address, and telephone number of all persons consulted in preparation of the answers, or who supplied documents reviewed or relied upon in the course of preparing your answers.

6. If you have reason to believe there may be persons able to provide more detailed or complete responses to any question contained herein, or who may be able to provide additional responsive documents, provide the names, titles, areas of responsibility, current addresses, and telephone numbers of such persons as well as additional information or documents they may have.

7. For each and every question contained herein, if information or documents responsive to this Information Request are not in your possession, custody, or control, then provide the names, titles, areas of responsibility, current addresses, and telephone numbers of the persons from whom such information or documents may be obtained.

8. If you have any other information about other party(ies) who may have information that may assist the Agency in its investigation of the Site, or who may be responsible for the generation of, transportation to, or release of contamination

at the Site, please provide such information. The information you provide in response to this request should include the party's name, address, type of business, and the reasons why you believe the party may have contributed to the contamination at the Site or may have information regarding the Site.

9. If any of the documents solicited in this Information Request are no longer available, please indicate the reason why they are no longer available. If pertinent records or documents were destroyed or are missing, provide us with the following:

   a. Your document retention policy;

   b. A description of how the records were destroyed (burned, archived, trashed, etc.) and the approximate date of destruction;

   c. A description of the type of information that would have been contained in the documents; and

   d. The name, job title and most current address known by you of the person(s) who would have produced these documents; the person(s) who would have been responsible for the retention of these documents; and the person(s) who would have been responsible for the destruction of these documents.

You must respond in writing to this required submission of information within **30 calendar days** of your receipt of this letter. For a corporation, the response must be signed by an appropriately authorized corporate official. For all other entities, the response must be signed by an authorized official of that entity.

If, for any reason, you do not provide all information responsive to this letter, then in your answer to EPA you must: (1) describe specifically what was not provided, and (2) provide to EPA an appropriate reason why the information was not provided.

All documents and information should be sent to:

Harry R. Steinmetz (3HS62)
U.S. Environmental Protection Agency, Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

This required submission of information is not subject to the approval requirements of the Paperwork Reduction Act of 1980, 44 U.S.C. Section 3501, et seq.

If you have any questions concerning this request for information, please contact Harry Steinmetz at (215) 814-3161. Legal questions can be referred to Humane Zia at (215) 814-3454.

Sincerely,

Laura B. Janson, Chief
Cost Recovery Branch

cc: Humane Zia (3RC41)
Mitch Cron (3HS22)
Dennis Matlock (3HS32)
Craig Olewiler (PADEP)
Larry Newcomer (PADEP)
Jeff Whitehead (PADEP)
Betsy Ullrich (NRC)

Enclosures:

1: Business Confidentiality Claims/Disclosure of Your Response to EPA Contractors and Grantees
2: Definitions
3: List of Contractors That May Review Your Response
4: Ledger Sheet from Safety Light, Inc.

Enclosure 1

Business Confidentiality Claims

You may be entitled to assert a claim of business confidentiality covering any part or all of the submitted information, in the manner described in 40 C.F.R. Section 2.203(b). Information subject to a claim of business confidentiality will be made available to the public only in accordance with the procedures set forth in 40 C.F.R. Part 2, Subpart B. If a claim of business confidentiality is not asserted when the information is submitted to EPA, EPA may make this information available to the public without further notice to you. You must clearly mark such claimed information by either stamping or using any other such form of notice that such information is a trade secret, proprietary, or company confidential. To best ensure that your intent is clear, we recommend that you mark as confidential each page containing such claimed information.

Disclosure of Your Response to EPA Contractors and Grantees

EPA may contract with one or more independent contracting firms (See Enclosure 3) to review the documentation, including documents which you claim are confidential business information ("CBI"), which you submit in response to this Information Request, depending on available agency resources. Additionally, EPA may provide access to this information to (an) individual(s) working under (a) cooperative agreement(s) under the Senior Environmental Employment Program (SEE Enrollees). The SEE program was authorized by the Environmental Programs Assistance Act of 1984 (Pub. L. 98-313). The contractor(s) and/or SEE Enrollee(s) will be filing, organizing, analyzing and/or summarizing the information for EPA personnel. The contractors have signed a contract with EPA that contains a confidentiality clause with respect to CBI that they handle for EPA. The SEE Enrollee(s) is working under a cooperative agreement that contains a provision concerning the treatment and safeguarding of CBI. The individual SEE enrollee has also signed a confidentiality agreement regarding treatment of CBI. Pursuant to CERCLA, 42 U.S.C. Section 9604(e) (7) and EPA's regulations at 40 C.F.R. Section 2.310(h), EPA may share such CBI with EPA's authorized representatives which include contractors and cooperators under the Environmental Programs Assistance Act of 1984. (See 58 Fed. Reg. 7187 (1993)). If you have any objection to disclosure by EPA of documents which you claim are CBI to any or all of the entities listed in Enclosure 3, you must notify EPA in writing at the time you submit such documents.

Enclosure 2

Definitions

1. The term "arrangement" shall mean every separate contract or other agreement or understanding between two or more persons, whether written or oral.

2. The term "documents" shall mean writings, photographs, sound or magnetic records, drawings, or other similar things by which information has been preserved and also includes information preserved in a form which must be translated or deciphered by machine in order to be intelligible to humans. Examples of documents include, but are not limited to, electronic mail and other forms of computer communication, drafts, correspondence, memoranda, notes, diaries, statistics, letters, telegrams, minutes, contracts, reports, studies, checks, statements, receipts, summaries, pamphlets, books, invoices, checks, bills of lading, weight receipts, toll receipts, offers, contracts, agreements, deeds, leases, manifests, licenses, permits, bids, proposals, policies of insurance, logs, interoffice and intra-office communications, notations of any conversations (including, without limitation, telephone calls, meetings, and other communications such as e-mail), bulletins, printed matter, computer printouts, invoices, worksheets, graphic or oral records or representations of any kind (including, without limitation, charts, graphs, microfiche, microfilm, videotapes, recordings and motion pictures), electronic, mechanical, magnetic or electric records or representations of any kind (including, without limitation, tapes, cassettes, discs, recordings and computer memories), minutes of meetings, memoranda, notes, calendar or daily entries, agendas, notices, announcements, maps, manuals, brochures, reports of scientific study or investigation, schedules, price lists, data, sample analyses, and laboratory reports.

3. The term "hazardous substance" means (a) any substance designated pursuant to section 1321(b)(2)(A) of Title 33 [of the U.S. Code], (b) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of [CERCLA], (c) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (42 U.S.C. Section 6921) (but not including any waste the regulation of which under the Solid Waste Disposal Act (42 U.S.C. Section 6901 et seq.) has been suspended by Act of Congress), (d) any toxic pollutant listed under section 1317(a) of Title 33, (e) any hazardous air pollutant listed under section 112 of the Clean Air Act (42 U.S.C. Section 7412), and (f) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 2606 of Title 15 [of the U.S. Code]. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (a) through (f) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

4. The term "pollutant or contaminant" shall include, but not be limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral

abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations in such organisms or their offspring, except that the term "pollutant or contaminant" shall not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under CERCLA, and shall not include natural gas, liquefied natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas).

5. The term "release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant), but excludes (a) any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons, (b) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine, (c) release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954 (42 U.S.C. Section 2011 et seq.), if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such Act (42 U.S.C. Section 2210), or, for the purposes of section 9604 of [CERCLA] or any other response action, any release of source byproduct, or special nuclear material from any processing site designated under sections 7912(a)(1) or 7942(a) of [CERCLA], and (d) the normal application of fertilizer.

6. The term "waste" or "wastes" shall mean and include any discarded materials including, but not limited to, trash, garbage, refuse, by-products, solid waste, hazardous waste, hazardous substances, pollutants or contaminants, and discarded or spilled chemicals, whether solid, liquid, or sludge.

7. The term "you" when referring to an incorporated entity shall mean and include the incorporated entity and its agents and representatives, including, but not limited to, persons directly authorized to transact business on the entity's behalf such as officers, directors, or partners with which the entity is affiliated, employees, accountants, engineers, or other persons who conduct business on the entity's behalf, as well as affiliated entities, including, but not limited to, partnerships, limited liability companies, divisions, subsidiaries, holding companies.

Enclosure 3

[rev. 10/2007]

List of Contractors That May Review Your Response

- Chenega Integrated Systems, LLC
  Contract #EP-S3-04-01
  Subcontractors:
  DPRA
  Tri-State Enterprise Corporation

- Tetra Tech EM, Inc.
  Contract #68-S3-0002
  Subcontractor:
  Eagle Instruments, Inc.

- Ecology and Environment, Inc.
  Contract #68-S3-0001
  Subcontractor:
  S & S Engineers, Inc.

- IT Corporation
  Contract #68-S3-00-06
  Subcontractors:
  Weavertown Environmental Group
  Environmental Restoration Company

- Earth Tech, Inc.
  Contract #68-S3-00-07
  Subcontractors:
  Industrial Marine Services, Inc.
  Cline Oil
  Hertz Equipment Rental

- EA Engineering, Science and Technology, Inc.
  Contract #EP-S3-07-07
  Subcontractor:
  URS

- Tetra Tech NUS, Inc.
  Contract #EP-S3-07-04

- Hydrogeologic (HGL)
  Contract #EP-S3-07-05
  Subcontractor: CH2MHill

- CDM-Federal Programs Corporation
  Contract # EP-S3-07-06
  Subcontractors:
  L. Robert Kimball & Associates Inc.
  Page Technologies Inc.
  Avatar Environmental LLC
  Terradon Corporation

- Eisenstein Malanchuck, LLP
  Contract #EP-W-06-014
  Subcontractors:
  James C. Hermann & Associates
  R. M. Fields International, LLC
  McRae & Company, Inc.

- Tech Law, Inc.
  Contract #EP-S3-04-03

- WRS Infrastructure & Environment, Inc. –
  Contract # 68-S3-03-02

- Kemron Environmental Services
  Contract # 68-S3-03-05

- Industrial Marine Services, Inc.
  Contract # 68-S3-03-03

- Guardian Environmental Services, Inc.
  Contract # 68-S3-03-04

- Booz-Allen & Hamilton
  Contract # GS-10F-0090J (GSA Schedule)

- Booz-Allen & Hamilton
  Contract # GS-35F-0306J (GSA Schedule)

- Artic Slope Regional Corporation
  Contract # EP-W-05-052
  Subcontractor: Booz-Allen & Hamilton

List of Inter-Agency Agreements

- General Services Administration
  CERCLIS/FCT/ICIS
  Contractor: Booz-Allen & Hamilton

- General Services Administration
  Breslube Penn Superfund Site
  Contractor: Booz-Allen & Hamilton

List of Cooperative Agreements

- National Association of Hispanic Elderly
  #CQ-822511

- AARP Foundation (Senior Environmental Employment)

  #824021
  #823952

- National Older Work Career Center, Inc.
  (NOWCC)- #CQ-830919

MONSERCO

ORIGINAL (Red)

SDMS DocID 2053496

CHARACTERIZATION

SURVEY OF

SAFETY LIGHT CORPORATION SITE

AT

BLOOMSBURG, PENNSYLVANIA

U.S.A.

Report Number Monserco/96/NB/1821
APPENDICES 1 - 19 & 21

by

MONSERCO LIMITED

MONSERCO LIMITED, 190 Wilkinson Road, Brampton, Ontario L6T 4W3 • Tel (905) 450-3507 • Fax (905) 450-8523 • 1-800-665-7736 (Canada and U S

The main conclusions relating to Task 2 are presented below.

1. Excavations of selected areas of the SLC site did not reveal the presence of buried radioactive items.
2. The electromagnetic survey results were consistent with surface metallic objects rather than buried objects.
3. The ground penetrating radar survey showed that small metallic objects (thought to be radium dials) could be buried inside the west dump.
4. The ground penetrating radar survey did not indicate buried drums inside the west dump.

Section 10 describes the work undertaken to complete Task 3. The purpose of Task 3 was to gain access to the two underground silos and obtain information on their contents.

Access was gained to both the East and West Silos during September 1995. The main conclusions of Task 3 are summarized below.

1. The silo concrete had been poured rather than set and was up to 40 inches thick in places.
2. No evidence was found for steel reinforcement bars or steel plates within the silo lid.
3. The concrete silo lids were contaminated.
4. The metal top of the East Silo tank was discernible. The metal was thin and corroded in places and holes in the metal were visible.
5. A vertical wall of the East Silo tank was discernible. This looked like thin corrugated steel.
6. TIMEX watch dials were found inside the East Silo.
7. The list of items found inside both silos included watch dials, jars, bottles, broken glass, and a box.
8. The date "1957" was written on an item inside the East Silo.
9. Evidence of recrystallization inside both silos was found, indicating that the internal environment had previously been moist.
10. Loose items rather than packaged items had been placed inside the silos.

Section 11 describes the work undertaken to complete Task 4. The primary objective of Task 4 was to drill new boreholes and sink new wells at various locations on the SLC site and assess the radiological condition of both the subsurface soils and waters. A secondary objective was to assess the non radiological status of the subsurface soils and waters.

The Tables below provides an outline summary of the results from analyses of the borehole soil and water samples.

Visual Inspection of the East Silo: The contents of the East Silo were visually inspected using a small Mitsibushi optical fibre camera. The camera with light attachment was placed down the penetration hole into the East Silo. The camera was moved both vertically and horizontally to view the silo contents. A video of the findings was made during the inspection. The verbatim transcript of the video sound commentary is reproduced in Appendix 14. A summary of the results is provided below.

- About 1 foot 8 inches of concrete had to be drilled to obtain access to the East Silo. The drillers expressed the opinion that concrete had been poured over the existing lid to seal the silo. Discrete boundaries had probably not been established when pouring the lid concrete and this could mean variable concrete thicknesses over the silo top.
- The metal top of the tank was discernible. The metal was thin and corroded in places and holes in the metal were visible.
- A vertical wall of the tank was discernible.
- Crystalline material was evident inside the tank. The driller reported that its colour was green but the colours are not clear in the video recording.
- The impression gained from the orientation and position of the crystalline material was that recrystallization had probably taken place. One possible mechanism would involve dissolution of some of the silo contents and evaporation of the dissolving medium leaving crystalline material on the surfaces of objects.
- The crystalline material was reported by the driller to glow in the dark when the camera light was switched off. This was not obvious from the video recording.
- Loose dials and sheets of dials were found inside the East Silo. These were almost certainly radium dials.
- TIMEX watch dials were found inside the East Silo.
- Glass jars and a bottle were found down the East Silo.
- Objects that resembled deck markers were found inside the East Silo. (Deck markers used Sr-90 to activate the phosphor.)
- The date "1957" was written on the lid of a container. The full text was difficult to read but could have been "August 14, 1957". This means that the East Silo was still operational during 1957.
- The objects at the top of the East Silo were within about 1 foot from the bottom of the concrete lid.
- A box was found inside the East Silo.
- Evidence of voidage was found inside the East Silo. This is consistent with loose objects rather than containerized materials being place in the silo and could be indicative of materials settling within the silo. The silo may not have been completely filled during its operational lifetime.

same material. Hold still, let me try focusing it in. I don't know what that is. I have no idea what that is. Let me try focusing it in. That's some type of a material that they put in the tank. Let me try shifting over say, and have it hold still right there one second. Now back to the focus.. right there is about as focused as you can get for the one piece on the left, but, then the focusing in the right, the right is further back, is right about there. Okay let me go back over to the dial area. Right there..what is that? Hold on.. let's focus it in on that, try lowering the camera down a little. Right there, I don't know what that is. I have no idea. It looks like all the same type of material all right. Okay, let us go back over to the watch dials. That will be our reference point there, some type of ... hold right there.. hold right there.. yes, yes, exactly what it is a sheet of watch dials. Before they cut them out you can focus in and see the numbers real well, right there.. are you lowering the camera down a little bit? Hold it right there.. let us get a good picture of that. I will articulate over so you can see the different dials on the paper , now you just sit back in that area so that we can see what we have, we are back onto something. Okay, lower down past the card hold right there. Eh, there is some more of the watch dials, more watch dials, at different elevations. Lower it down just a little bit, lowering down.. hold right there.. another dial of some sort. I don't know exactly what that is. There is another watch dial, with some sort of a probe or something sticking through one of the dials.. there is a piece of material.. sort of a material base in there.. shift along so that we can see the whole piece of material coming over to a watch dial.. hold still right there. I want to focus in and read what the name is that is on the dial. Oh, oh, okay, something, yes something, go around it.. right there.. hold still right there. I don't know whether it says Timex on it or not.. right there.. That is a Timex, that is a Timex. Bring the camera down just a little bit more, get a picture of that.. hold it right there.. let me try bringing the camera over. Hold still, let me try to clear it up now.. still too far away. Bring this down a little bit further. Okay, you are stuck on the claw. That is a Timex..see that, when they say "it takes a licking and keeps on ticking" they weren't lying. This ought to be a good ad for them. Now down below the Timex it looks like.. let's shift down below, see if that's, looks like some kind of a jar a.. a.. okay.. okay..we went over the material, what we are stuck in there is the material itself. That is all material that we are pushing around with the camera. Let's see if we can get around that piece of material and go back down a little bit deeper.. hold right there.. hold there.. what do we have? That is a jar.. a broken piece of glass in the background.. it is a complete jar. Look inside the jar, that is very good.. hold it there.. hold there. You can see the sparkles inside of the jar. Look at the iridescence, how it is sparkling in the light. Hold still right there.. what I am going to do is that is, I am going to turn the light off and leave the video on, to see if we can see the sparkles inside. You can see some sparkles on the screen.. see how the screen is sparkling? I would feel that would be more the iridescence inside coming back on with light because you can see it coinciding with the way the camera was sparkling before the lights were on, it is still sparkling. I would say that is some kind of iridescent glowing material. Going into the glass.. oops, wait a second.. hold still, let me try to shift this over, up a little bit..okay.. right there. Down a little bit.. going down into the jar itself.. hold there.. let me see if I can shift the camera in to look into the jar now.

all those dots it's reflecting. That's all your iridescent paint. Okay, come on up. Let's go around the other side of the hole now. There are two holes that are joining with a piece of material in the middle. Hold still.. hold there.. hold right there. What is that? Some type of wired material, sheet material of some kind. That could be the back of a dial couldn't it, the back of a watch dial? Okay, coming up again, out of the hole, coming up into the concrete area. Okay, now back down into the hole again._*TAPE UNCERTAIN*_____ how's that, we're going down. We're down on the bottom, you're down in _*TAPE UNCERTAIN*_____ some material okay. I haven't seen anything , oh way over there- what's that? Right there, what is that? You're into.. right there.. hold still.. okay we're into a pocket of something. We're into a pocket. Try to push us down in just a little bit. Go down.. we're down into a pocket of dials- yes.. hold.. okay, yes there's a bunch of dials that look like they could have been inside of a glass jar that is broken. That looks like the bottom of a broken jar, in upper right-hand corner. Right there, that could be.. I have no idea what that could be. Back up to the watch dials again.. coming over.. up a little bit.. pull your camera up.. hold it there..glance over again. What is that? I want to see if we can find another watch dial that says Timex. Maybe we can talk them into paying for half the cleanup. That's it we've got proof. Now what is that? That's some kind of, ugh, hold still, I want to see if that's, that's something growing in the tank, is it? Roots? Or a broom or something like that, yeah. There, now you're back to some kind of a glass, ugh, tube of some sort. They've disturbed a lot when they pushed down, They've created a lot of waste that we could actually look into. I really have to tell you when they pushed around the material, they made it where we can't - one second - back up a little bit.. back it up.. hold.. hold.. right there. There it is, Timex, right over the dial. Perfect, perfect crystal clear picture, don't lose it.. don't lose it.. right there.. that is a Timex.. Waterloo? No, waterproof. Kill the lights. Okay audio back on, I pushed the button by mistake, leaning on it. Let me reflect that back over and try to see how many Timex dials we saw in the area. There's one Timex.. oh, oh.. hold still, oh okay..now try to hold it still the whole time. There is some kind odd a piece of material, metal or something right there, see, it could be a larger dial. That could be a piece of a larger dial couldn't it? Yeah, well there's a bunch of them right there, and another dial.. hold still a second, I want to try to focus in on that, see if we can get anything out of it. Wow, just all material with raw accretion on it or something. That, I have no idea what it is. That's another cavity we can look down into. Come around that large dial. That looks like a very __*TAPE UNCERTAIN*____ there's another dial right back in there, a bunch of dials, hold still right there.. see if we can get another name. No, there's no way I'm getting a name. (Do you see anything interesting?) Yes, we've got a Timex watch dial, we've picked up on the actual date on a piece of material inside there (good). I haven't seen any of that yet. Go down a little bit lower, ugh bring it over, ugh, now right there.. hold still. That is another, ugh, dial. You see all the broken debris in there, lots of- what is that, right there? Right there, hold still, right there, what is that? Hold still I want to see what that piece right there is. What is that right there? Hold still, focus in on that, we don't know what that is, that could be some sort of tool they used. We have no idea what that could be, but whatever it is, it is something with grooves turning it and you can see some of the grooves go all the way around, some do not. So it was definitely man-made whatever it is. I mean it's not something that as just scratched up. What do

you say, try looking at the top of it? Try going down it slow..slow..very slow..very slow.. so that I can try to - hold still, I want to try to articulate down a little bit.. hold still.. hold still.. hold still.. a little bit more, all I'm trying too do is get the head of the camera in the hole. There that's what we wanted. You're in, you're ready. I don't know what it is, it looks like it just continues on. Oh, we lost it, hold still, we lost it, we just stuck the head of the camera on something. Back the camera up.. hold still there for a bit. What is that? It looks like some sort of a - whoa, what is all this? We're down inside something, okay that's where we were exactly. That looks like, though, that we're in some sort of a box or something. I'm not sure if that is a box, you can see that it has a flat wall surface. Across, completely across, and then now there is another opposing angle to it so it was either some sort of a box, looking up the wall we're at approximately 7 foot in to the tank, inside the tank, 9 for if you count the top 2 for of concrete on the tank. Right there is another watch dial. We'll try focusing that in. It looks like it was a box that may have had a bunch of watches or something in it and when they punched down through, they broke the box open. What do we have right there? Another watch dial, we were in this area before. Okay, let's pull up and move to another area. Hold right there a second, try to cue that in, try it down, hold right there a second, that looks like some of the material debris that is inside of the tank.. hold still.. right there. One of our lights must be a little dirty or hitting the side wall, well, maybe, maybe not, maybe it's just where there's some real _*TAPE UNCERTAIN*_____ crystallized forms, look at that. Coming up, back it over, ok you're into the wall, ok aye just move it up a little bit. Okay we're right on the edge of the wall, okay you're hitting the wall. Hold still right there- right there, into another big batch of, oh.. hold still.. hold still.. we've got some good time watches here. Well, there's another pile of Timex, going down, hold, we got a whole pile of Timex watch dials, let's see, hold right there a second, let's just get over a little.. hold it... hold it.. I want to read what that says.. it says Timex "something". Hey, "MADE IN THE USA", there you go, you, "MADE IN THE USA" hold still, there it is good old "MADE IN THE USA" on the upper right-hand corner. Going down past the watches, hold right, hold.. hold right there.. hold there.. and another jar of some sort, looking right down inside of. Another...and another jar of some sort, shifting down the side of the jar, okay going over further to another area, passing by that same jar again, trying to get around it to go deeper into the hole. Hold still right there one second, ugh, let me try focusing that in. There's something right there on the upper right-hand corner, some sort of a jar, a test tube or some thing. Hold still, ah, something just fell on top of it, do you believe that? ____*TAPE UNCERTAIN*_____ a test tube, what is that right there? Hold still.. hold still.. hold still.. that's another jar.. hold still there and down to another pile of watch debris or it could even be that same pile just coming in from a different angle that we saw- it is- it is the same debris because I remember that jar. We're at the bottom of the hole again. Can we back up a little bit? Right there.. hold it there a second, what is that? That's some sort of a box or something. It is some sort of a box, you can see the corner of a box right there, some sort of a little box, that continues across, to a pile of watches. Okay, come on up a little bit, what is that right there? Hold still, a watch? And that looks it could be just another bottle/jar, oh, okay, try taking the camera down a little bit and let me try to bring it over so that we can get a shot, go ahead, down a little bit, right there.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

SUBJECT: Interview Summary

4/1/08

Re: Safety Light Site

FROM: Harry R. Steinmetz (3HS62)
Civil Investigator

TO: File

On March 20, 2008 I interviewed at the Safety Light Site, 4150 Old Berwick Rd., Bloomsburg, PA 17815. resides at , tel: . He was born on

This meeting was arranged by telephone in advance.

His career at Safety Light began in 1956 when he was hired as a dial process sprayer later becoming a radioactivity lab technician. He progressed to working in the Health Physics Department between 1963 and 1994 (full time) and 1994 to 1997 (part time). In the Health Physics Department, he surveyed the entire U.S. Radium/Safety Light properties conducting bio-assay measurements and wipe surveys. In 1957, U.S. Radium worked with the following isotopes: radium, strontium, cobalt, cesium, polonium, krypton, nickel and promethium. Around 1962 or 1963, the company replaced these elements with tritium in its process.

U.S. Radium and Safety Light "manufactured radioactive sources." Initially, radium was used in this process which was conducted in the radioactive lab in tubes and sealed sources.

I questioned customers of USR and Safety Light. He recalled GE, Sandia Labs (New Mexico), Mound Labs and the U.S. Navy. With regard to the Navy, deck markers were manufactured . When they were spent, they were returned by the Navy and stored in the "8 x 8 building then the west silo." Cesium was used in "hot cell cleaning." It was then sent off-site as radioactive waste. He had heard of metascope work at the site for the Army but this preceded his tenure there.

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I asked him about ledgers that had such notations as "returned" and "for disposal" and the like. He felt with confidence that they were sent back to the site. He felt that such isotopes were stored for 1 to 3 months in the west disposal building, then shipped to Maxi Flats for disposal. The generators of these wastes were: ITT Industrial labs, Moss-Gordin, National Bureau of standards, U.S. Navy Propellant Plant, Nuclear Products Co., Midwest Solvents Co., Picker X-Ray Corp., Pennsylvania R.R. Co., Naval Supply Center, Dept. of the Navy, Day-Brite Lighting, Inc., Radelin-Kirk, Ltd., Moss-Gordin XXX(?) Cleaner Co., Rohm & Haas and Republic Steel.

stated that the first silo contained deck markers while the second general contaminated waste dials. He thinks there are watch and clock dials from Timex and Westclox in the silos which were off-spec pieces rather than pieces returned by those companies for disposal.

Exit signs containing tritium were returned "by the thousands."

cc: Humane Zia (3RC42)
Mitch Cron (3HS22)

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